

**DIELECTROPHORESIS DEVICE AND METHOD HAVING  
INSULATING RIDGES FOR MANIPULATING PARTICLES**

**ABSTRACT OF THE DISCLOSURE**

Embodiments of the present invention provide methods and devices for manipulating particles using dielectrophoresis. Insulating ridges and valleys are used to generate a spatially non-uniform electrical field. Particles may be concentrated, separated, or captured during bulk fluid flow in a channel having insulating ridges and valleys.

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